Arizona Department of Water Resources
GROUNDWATER USERS ADVISORY COUNCIL
Tucson Active Management Area
Jeff Tannler, Area Director

Minutes
July 23, 2008

Members Present: Dee O'Neill, Chair
John Mawhinney, Vice-Chair (via telephone)
Dan Offret
Chuck Sweet

Tucson Staff Present: Jeff Tannler
Mary Bauer
Christina Bickelmann
Laura Grignano
Diane Kusel
Dawne Wilson

Phoenix Staff Present: Sandy Fabritz-Whitney

Others Present: Beryl Baker, Private Citizen
Kathleen Chavez, Pima County
Hector Conde, Private Citizen
Tim Cloninger, WRRC Student
Dave Crockett, Flowing Wells Irrigation Dist.
Nancy Freeman, Groundwater Awareness League
Arturo Gabaldón, Community Water Co.
Rosanna Gabaldón, Office of the Mayor – Town of Sahuarita
Larry Kempton, Farmers Investment Co.
Patricia Kinsman, Private Citizen
Holly Lachowicz, City of Tucson Ward 3 Aide
Salette Latas, Council Member – Town of Oro Valley
Val Little, Water CASA
Juliet McKenna, EL Montgomery & Assoc.
Kathy Pastryk, Private Citizen
Robert Robuck, Private Citizen
Pete Schlegel, PMA Group
Linda Smith, Tucson Water
Sidney Smith, CMID
Warren Tenney, Metro Water District
Deborah Tosline, Bureau of Reclamation
Alex Yiannakakis, Private Citizen

1. Call to Order

Chair Dee O'Neill called the meeting to order at 10:30 a.m. Introductions were made.

2. Approval of Minutes

Dan Offret made a motion to approve the minutes of January 23, 2008. Chuck Sweet seconded the motion. The minutes were unanimously approved.

3. Water Resources Assessment and Water Use Trends

Jeff Tannler, Tucson AMA's Area Director, reported that ADWR's Data Management Section and Tucson AMA staff have been working on compiling water use data from 1985-2006; this data is collected from the Annual Water Withdrawal and Use Reports. The information collected will be used as part of a Tucson AMA assessment that will include water budgets, projections, and identification of issues related to achievement of safe-yield for the Tucson AMA. All this information will serve as background for development of the Fourth Management Plan.

Next, Mr. Tannler introduced Laura Grignano, Tucson AMA's Industrial Planner, who presented the water use trends based on data collected over the twenty year period.

Ms. Grignano began by presenting water demands for the different water sectors. Of the major water demand sectors, municipal use has continued to increase as population has grown, accounting for approximately 58% of current water demand. Agricultural demand has fluctuated over time due to crop prices and subsidies, but the trend of non-Indian agricultural demand is beginning to show a slight decline. Non-Indian agricultural demand is about 26% of the Tucson AMA's total water demand. Industrial demand has also fluctuated over time; approximately 60% of the industrial demand in the Tucson AMA is metal mining, which generally tracks with the price of copper. This sector accounts for roughly 16% of water demand.

Groundwater outflow is also part of the water budget. This is the amount of water that leaves the AMA; this number has held constant over time at approximately 40,000 acre-feet. There is also a small amount of riparian and Indian agricultural use demand.

Ms. Grignano continued by reviewing the water sources that have been used to meet sector demands. Until relatively recently, the Tucson AMA has relied solely on groundwater. Over the last eight years CAP water use has increased with groundwater use declining. Effluent has been a small but steady supply to offset groundwater pumping. When Tucson Water first served CAP directly to its customers in 1993, there was also a corresponding drop in groundwater use that year.

Next, Ms. Grignano took a closer look at each sector. Both residential and non-residential use in the municipal sector have increased proportionately. The total amount of lost and accounted for water has also increased as more water is delivered to customers. Small provider demand has stayed relatively constant since the mid-1990s, and exempt well use demand has been relatively small. Use of CAP water increased during 1993-1994 due to direct delivery, with corresponding decline in groundwater pumpage. Steady use of CAP water picked up again in 2000 resulting in, once again, a decrease in groundwater use. It is important to note that all of the more recent use of CAP water is through recharge and recovery in the Tucson AMA. Effluent use is also a growing supply for the municipal sector.

The majority of the industrial demand comes from the metal mining sector, with use peaking in the mid-1990s followed by a slow decline over the next decade. Due to copper prices reaching an all time high in the last few years, water use in this sector has started to increase.

All other industrial uses have kept at a relatively constant rate. It is important to note that the other industrial categories (e.g., golf and turf) receive water from their own wells and pursuant to grandfathered groundwater rights. The golf and other turf facilities that receive groundwater or effluent

from providers are included in the municipal sector trend under non-residential use. All of the industrial demand in the Tucson AMA has been met with groundwater, with the exception of a very small amount of CAP water that ASARCO used in 2001.

There has been a slight decline in non-Indian agricultural demand over the last two decades. Since 2000 Indian agricultural demands have started to increase. The water supplies used to meet non-Indian agricultural demand has changed over time. Historically groundwater has been used, but starting in the mid-1990s CAP water has been used in-lieu of groundwater at Groundwater Savings Facilities. More recently Non-Indian Agricultural or NIA pool water (a type of CAP water that does not earn an offset in credits) has also been used by Tucson farmers.

Indian water use has increased over the last decade. Historically a small amount of groundwater was pumped on the reservation and delivered to one of the nearby metal mines; it is now tapering off. More recently CAP water is being used to meet agricultural demand, in addition to recharge projects on the reservation.

The majority of water stored at recharge projects in the Tucson AMA has been CAP at Underground Storage Facilities and Groundwater Savings Facilities. There is also effluent being stored at Underground Storage Facilities. As of 2006, the accumulated long term storage credits stored at these facilities is approximately 650,000 acre-feet.

In conclusion, Ms. Grignano displayed groundwater deficit over time. Groundwater deficit is the difference between water withdrawn from the aquifer and what is replenished through natural and incidental recharge, as well the Central Arizona Groundwater Replenishment District's obligation to replenish water. Currently, the Tucson AMA still has a groundwater deficit, but in the last eight years it is steadily trending upward. With the use of more renewable resources, Tucson's groundwater dependence is declining, giving the AMA a positive outlook.

The presentation will be posted on ADWR's website: www.azwater.gov .

4. ADWR Conservation Program and 2008-2009 Plan

Christina Bickelmann, Tucson AMA's Water Conservation Specialist, presented ADWR's 2008-2009 Conservation Program. The plan was created to develop ways ADWR can assist communities in conserving water.

The recognition of the need to use water more efficiently in order to secure sufficient water supplies for Arizona provided the foundation for the program, coupled with Governor Napolitano's vision of creating a "culture of conservation." The AMAs have been working with the Statewide Conservation Office since 2007 to create the program, and the goals identified will be a priority for all members of the group.

The following vision statement was developed for the plan - *By expanding on the progress that has been made, we can create a culture of conservation that will greatly reduce the impact of drought on our natural resources, economy, and quality of life.*

The following mission statement was developed for the plan - *To promote and encourage the wise and efficient use of water by providing assistance and resources throughout Arizona.*

The intent of the program is to expand beyond the traditional conservation programs in the AMAs to assist other communities in the state. Staff and resources were not available before the Statewide

Conservation Office was established. There has been coordination between the statewide office and AMAs in order to build upon the different efforts already in place in the AMAs. This coordination assisted the group in guiding activities that would be conducted throughout other communities in the state.

The framework for this program consists of four pillars: Planning, Funding & Assistance, Education & Outreach, and Technology Transfer. Under these four pillars material is being developed to link efforts so that the program works cohesively.

One of the first goals is to target ten cities, many of which are outside of AMAs and were chosen by the Statewide Conservation Office. The first four cities targeted will be Kingman, Show Low, Cottonwood and Nogales. The group is currently working on assessments for each targeted city, in order to become familiar with what information is already in place, and to learn more about the needs of the cities.

The key components of a strong, effective program were identified: Public Awareness, Education & Outreach, Physical System Evaluation and Improvement, Conservation Rate Structure, Water-efficient Technologies, Low Water Use Landscape Guidance, Water Reuse and Recycling, and a Conservation Plan.

An additional goal of the group has been to develop a water conservation toolkit to assist cities and towns in building strong, effective programs using the key components identified. Tool formats will depend on needs of the end user(s): e.g., fact sheets, guidelines, CDs, web links, brochures, Power Point presentations, etc. All toolkits will be made available on ADWR's website.

Although the conservation program would not be regulated, developing a best management practices matrix for water providers outside the AMAs based on service area characteristics is another goal of the group. Components from the AMA Third Management Plan Modified Non-Per Capita Program framework are a good example of how the program could work.

The group will also be looking at developing information on costs and available resources from ADWR and others. Communication is very important both internally and externally with regulated and non-regulated water users if the implementation of the program is to be effective.

It is intended to expand the program beyond the municipal sector to other sectors (industrial, agricultural, institutional) in the next year or two. As information and materials are developed they will be posted on ADWR's website: www.azwater.gov/conservation. The group encourages those that have other ideas on ways to enhance the program to please contact the Statewide Water Conservation or AMA offices.

Val Little, Director of Water CASA, expressed some concern about ADWR funding and support of statewide conservation assistance activities; the concern is that statewide activities are now being partially supported using Conservation/Augmentation funds collected as part of the withdrawal fee for rights/permits located within the Tucson AMA.

5. Public Comment

Sandy Fabritz-Whitney, Assistant Director of ADWR's Water Management Division, announced the Governor has just appointed Jeff Tannler as the new Area Director for the Tucson AMA office.

6. Area Director's Report

Jeff Tannler reported that state budgets are very tight; the Tucson AMA office is short at least two positions, and there are no foreseeable additions to staffing this year.

An ongoing project is the Arizona Water Atlas. This is being produced by the Statewide Planning Division of ADWR. The Atlas is divided into seven planning areas composed of groundwater basins, and each planning area is discussed in a separate volume. When the Atlas is complete there will be nine volumes in all. Volumes one through seven are posted on the website, and volume eight that comprises the five AMAs will be posted at the end of July, 2008.

The Third Management Plan Modifications were finalized in May 2008. Large water providers were notified of the modifications that pertain to the Non-Per Capita Conservation Program (NPCCP). Under the modified program all large municipal providers that are not designated as having an assured water supply and that are not regulated as an institutional provider will be regulated under this modified program. The large providers designated as having an assured water supply will continue to be regulated under its existing municipal conservation program unless they elect to enroll in the modified NPCCP. Small providers (those serving less than 250 acre-feet annually) will not be affected by the modifications. The program will become effective January 10, 2010.

7. Date and Agenda for Next Meeting

The GUAC members will be polled to determine the date and time of the next meeting.

8. Adjournment

The meeting was adjourned at 11:15 a.m.